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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,143	10/28/2003	Jerome Kurtzberg	YOR920030560US1	6436

7590 05/05/2006	EXAMINER
Stephen C. Kaufman	ADAMS, CHARLES D
IBM CORPORATION	

ART UNIT	PAPER NUMBER
2164	

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DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/695,143	KURTZBERG ET AL.
	Examiner	Art Unit
	Charles D. Adams	2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *10-28-2003*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-10 of copending Application No. 10695142 in view of <u>Chung</u> ("A neuro-based expert system for facility layout construction").

Application No. 10695142 teaches

A travel database comprising a compendium of individual travel history;

A road database comprising a compendium of at least one of road location solution, road information, and road diagnostics; and

Employing an adaptive analysis technique for interrogating said travel and road

databases for generating an output data stream, said output data stream correlating

travel history with road location solution.

Chung teaches

A requirements database comprising a compendium of office requirements

history (see page 377, column 2. "Input new layout associative requirements ... to be

generalized by BAMES", and "Step 6. Read the extracted layout rules into the database

for incremental learning". Also see page 372, Figure 7, "Flexible Manufacturing

Environment (Historical Data)", "Past Experience");

An office database comprising a compendium of at least one of office layout

solutions, office information, and office diagnostics (see page 375, section 7.3. Also see

page 372, Figure 7, "Flexible Manufacturing Environment (Historical Data)", "Space

Requirements"); and

Employing an adaptive analysis technique for interrogating said requirements

and office databases for generating an output data stream, said output data stream

correlating office requirements with office layout solution (see page 380, column 2, "The

system is an off-line ES utility that will help layout planners to more effectively work with

the construction of facility layout. The system exploits a BAM-based neural network to

classify layout requirements, included closeness relationship, relative position, area

size, and site constraints into their corresponding layout configuration by means of the

capability to learn either past experienced layouts or theoretical layouts output from

computer software") .

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Application No. 10695142 in view of

Chung, since Chung teaches that "the results of this paper indicate that the neuro-

based expert system can handle imperfect or incomplete data in many layout cases,

providing a measure of knowledge fault tolerance, and the ability to handle data

uncertainty and incorporate layout routing flexibility" (see page 360, 2nd sentence of

column 2) It would have been obvious to one or ordinary skill in the art at the time the

invention was made to use databases storing different information (Chung stores layout

information, Seibel road layout information), with the adaptive analysis methods of

Seibel, since storing different types of data in databases is well known in the art.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Seibel (US Patent 6,484,092) in view of Chung ("A neuro-based expert system for

facility layout construction").

As to claim 1, Seibel teaches:

i) providing a requirements database (see 4:31-42)

Seibel doesn't teach wherein the requirements databases comprises a

compendium of office requirements history.

Chung teaches wherein the requirements databases comprises a compendium of

office requirements history (see page 375, section 7.3. Also see page 372, Figure 7,

"Flexible Manufacturing Environment (Historical Data)", "Space Requirements").

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Seibel in view of Chung, since Chung

teaches that "the results of this paper indicate that the neuro-based expert system can

handle imperfect or incomplete data in many layout cases, providing a measure of

knowledge fault tolerance, and the ability to handle data uncertainty and incorporate

layout routing flexibility" (see page 360, 2nd sentence of column 2) It would have been

obvious to one or ordinary skill in the art at the time the invention was made to use

databases storing different information (Chung stores layout information, Seibel road

layout information), with the adaptive analysis methods of Seibel, since storing different

types of data in databases is well known in the art.

Seibel as modified teaches:

ii) providing an office database comprising a compendium of at least one of office

layout solutions, office information, and office diagnostics (see Chung page 375, section

7.3. Also see page 372, Figure 7, "Flexible Manufacturing Environment (Historical

Data)", "Space Requirements").

iii) employing an adaptive analysis technique for interrogating said requirements

and office databases for generating an output data stream, said output data stream

correlating office requirements with office layout solution (see Seibel 4:59-67).

As to claim 2, Seibel as modified teaches comprising a step of updating the

requirements database (see Seibel 4:21-31).

As to claim 3, Seibel as modified teaches comprising a step of updating the

requirements database so that it includes the results of employing an adaptive analysis

technique (see Seibel 4:21-30).

As to claim 4, Seibel as modified teaches comprising a step of updating the office

database (see Seibel 3:32-42).

As to claim 5, Seibel as modified teaches comprising a step of updating the office

database so that it includes the effects of employing an adaptive analysis technique on

the requirements database (see Seibel 4:21-30).

As to claim 6, Seibel as modified teaches comprising a step of refining the

employed adaptive analysis technique in cognizance of pattern changes embedded in

each database as a consequence of updating the requirements database (see Seibel

4:23-30).

As to claim 7, <u>Seibel</u> as modified teaches a method according to claim 4. comprising a step of refining the employed adaptive analysis technique in cognizance of pattern changes embedded in each database as a consequence of updating the office database (see <u>Seibel</u> 4:23-30).

As to claim 8, comprising a step of employing neural networks as the adaptive analysis technique (see <u>Seibel</u> 4:23-30).

As to claim 9, <u>Seibel</u> teaches comprising the steps of:

i)   providing a requirements database (see 4:31-42)

<u>Seibel</u> doesn't teach comprising a compendium of office requirements history.

<u>Chung</u> teaches comprising a compendium of office requirements history (see page 377, column 2. "Input new layout associative requirements ... to be generalized by BAMES", and "Step 6. Read the extracted layout rules into the database for incremental learning");

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified <u>Seibel</u> in view of <u>Chung</u>, since <u>Chung</u> teaches that ""the results of this paper indicate that the neuro-based expert system can handle imperfect or incomplete data in many layout cases, providing a measure of knowledge fault tolerance, and the ability to handle data uncertainty and incorporate layout routing flexibility" (see page 360, 2nd sentence of column 2). It would have been

obvious to one or ordinary skill in the art at the time the invention was made to use

databases storing different information (Chung stores layout information, Seibel road

layout information), with the adaptive analysis methods of Seibel, since storing different

types of data in databases is well known in the art.

Seibel as modified teaches:

ii)   providing an office database comprising a compendium of at least one of

office layout solutions, office information, and office diagnostics (see Chung page 375,

section 7.3); and

iii)   employing an adaptive analysis technique for interrogating said

requirements and office databases for generating an output data stream, said output

data stream correlating office requirements with office layout solution (see Seibel 4:59-

67).

As to claim 10, Seibel teaches comprising:

i)   means for inputting a requirements database

Seibel does not teach comprising a compendium of office requirements history

Chung teaches comprising a compendium of office requirements history (see

page 377, column 2. "Input new layout associative requirements ... to be generalized by

BAMES", and "Step 6. Read the extracted layout rules into the database for incremental

learning");

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have modified Seibel in view of Chung, since Chung

teaches that ""the results of this paper indicate that the neuro-based expert system can handle imperfect or incomplete data in many layout cases, providing a measure of knowledge fault tolerance, and the ability to handle data uncertainty and incorporate layout routing flexibility" (see page 360, 2nd sentence of column 2) It would have been obvious to one or ordinary skill in the art at the time the invention was made to use databases storing different information (Chung stores layout information, Seibel road layout information), with the adaptive analysis methods of Seibel, since storing different types of data in databases is well known in the art.

ii)   means for inputting an office database comprising a compendium of at least one of office management solutions, office information, and office diagnostics (see Chung page 375, section 7.3);

iii)   means for employing an adaptive analysis technique for interrogating said requirements and office databases (see Chung page 372, Figure 7, "Neural Rule Development");

and

iv)   means for generating an output data stream, said output data stream correlating office requirements with office layout solution (see Seibel 4:59-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Adams whose telephone number is (571) 272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Charles Adams
AU 2164

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Chung.

As to claim 1, Chung teaches:

i)   Providing a requirements database comprising a compendium of office

requirements history (see page 377, column 2. "Input new layout associative

requirements ... to be generalized by BAMES", and "Step 6. Read the extracted layout

rules into the database for incremental learning". Also see page 372, Figure 7, "Flexible

Manufacturing Environment (Historical Data)", "Past Experience");

ii)   providing an office database comprising a compendium of at least one of

office layout solutions, office information, and office diagnostics (see page 375, section

7.3. Also see page 372, Figure 7, "Flexible Manufacturing Environment (Historical

Data)", "Space Requirements") ; and

iii)   employing an adaptive analysis technique for interrogating said

requirements and office databases for generating an output data stream, said output

data stream correlating office requirements with office layout solution (see page 372,

Figure 7, "Neural Rule Development". Also see page 380, column 2, "The system is an

off-line ES utility that will help layout planners to more effectively work with the

construction of facility layout. The system exploits a BAM-based neural network to

classify layout requirements, included closeness relationship, relative position, area

size, and site constraints into their corresponding layout configuration by means of the

capability to learn either past experienced layouts or theoretical layouts output from

computer software").

As to claim 2, comprising a step of updating the requirements database (see

page 377, column 2. "Input new layout associative requirements ... to be generalized by

BAMES", and "Step 6. Read the extracted layout rules into the database for incremental

learning". Also see Figure 7, wherein the "Adjustment" serves as input back into the

"Flexible Manufacturing Environment" box).

As to claim 3, comprising a step of updating the requirements database so that it

includes the results of employing an adaptive analysis technique (see page 377, column

2. "Input new layout associative requirements ... to be generalized by BAMES", and

"Step 6. Read the extracted layout rules into the database for incremental learning".

Incremental learning is an adaptive analysis technique. Also see Figure 7, wherein the

"Adjustment" serves as input back into the "Flexible Manufacturing Environment" box).

As to claim 4, comprising a step of updating the office database (see page 375, section 7.3. Also see Figure 7, wherein the "Adjustment" serves as input back into the "Flexible Manufacturing Environment" box).

As to claim 5, comprising a step of updating the office database so that it includes the effects of employing an adaptive analysis technique on the requirements database (see page 375, section 7.3. Also see Figure 7, wherein the "Adjustment" serves as input back into the "Flexible Manufacturing Environment" box).

As to claim 6, <u>Chung</u> teaches comprising a step of refining the employed adaptive analysis technique in cognizance of pattern changes embedded in each database as a consequence of updating the requirements database (see page 377, column 2. "Step 6. Read the extracted layout rules into the database for incremental learning; i.e., go to step 8 of the BAMES multiple incremental learning algorithm).

As to claim 7, <u>Chung</u> teaches a method according to claim 4.

comprising a step of refining the employed adaptive analysis technique in cognizance of pattern changes embedded in each database as a consequence of updating the office database (see page 377, column 1, steps 1-8. "Step 8. If new training layout patterns occur, go to step 2", also see Figure 7.).

As to claim 8, comprising a step of employing neural networks as the adaptive analysis technique (see page 359, abstract. "Unlike implementing a popular back propagation network as an ES, the proposed Bidirectional Associative Memories for Facility LayOut (BAMFLO) system is an intelligent layout consultant system consisting of pipeline BAM neural networks with simple, fast incremental learning and multiple bidirectional generalization characteristics").

As to claim 9, comprising the steps of:

i)   providing a requirements database comprising a compendium of office requirements history (see page 377, column 2. "Input new layout associative requirements ... to be generalized by BAMES", and "Step 6. Read the extracted layout rules into the database for incremental learning");.

ii)   providing an office database comprising a compendium of at least one of office layout solutions, office information, and office diagnostics (see page 375, section 7.3);

and

iii)   employing an adaptive analysis technique for interrogating said requirements and office databases for generating an output data stream, said output data stream correlating office requirements with office layout solution (see page 372, Figure 7, "Neural Rule Development").

As to claim 10, comprising:

i)   means for inputting a requirements database comprising a compendium of

office requirements history (see page 377, column 2. "Input new layout associative

requirements ... to be generalized by BAMES", and "Step 6. Read the extracted layout

rules into the database for incremental learning");

ii)   means for inputting an office database comprising a compendium of at

least one of office management solutions, office information, and office diagnostics (see

page 375, section 7.3);

iii)   means for employing an adaptive analysis technique for interrogating said

requirements and office databases (see page 372, Figure 7, "Neural Rule

Development");

and

iv)   means for generating an output data stream, said output data stream

correlating office requirements with office layout solution.

SAM RIMELL
PRIMARY EXAMINER